

### Amendments to the Specification

Please insert the following sentence to page 1 following the title:

This application is a continuation of U. S. Patent Application Serial No. 09/814,056 filed March 22, 2001 entitled “Method and Apparatus for High-Performance Sequence Comparison,” incorporated herein by reference.

Please amend page 3, lines 20 through 25 of the specification as follows:

The **BLAST** program can be downloaded from the NCBI and run locally as a full executable. It can be used to run **BLAST** searches against private local databases or downloaded copies of the NCBI databases. The 1.4 and later versions of **BLAST** are capable of being run in parallel using shared memory multiprocessors. ( N. Camp, “High-Throughput **BLAST**,” Silicon Graphics, Inc., September 1988, [www.sgi.com/chembio/resources/papers/HTBlast/HT\\_Whitepaper.html](http://www.sgi.com/chembio/resources/papers/HTBlast/HT_Whitepaper.html))

Please amend page 4, line 20 through page 5, line 1 of the specification as follows:

The Blackstone Technology Group has developed a parallel processing system that allows for **BLAST** processing on a compute farm. (“SmartBlast™ – Version 1.0,” Blackstone Technology Group, <http://www.compute-farm.com/compute/SmartBlast2.pdf> (2001)). Compute farms are large groups of servers that merge computing power into a single resource that is mainly used for long-running and memory-intensive applications, such as those that handle vast amounts of genetic information. The system, **SmartBlast™**, distributes previously created segments of **BLAST** reference datasets to servers in the compute farm, based on demand. The segments are created using a proprietary data segmentation tool, **SmartCache™** (“SmartCache™ – Version 2.0,” Blackstone Technology Group, <http://www.compute-farm.com/compute/SmartCache2.pdf>). Results are then collected, merged, and sorted by high scoring pair and presented in a single document.

Please cancel the previous Abstract.

Attachment: New Abstract.